American Falls Water, Power,
and Light Company
(Island Power Plant)
American Falls
Power County
Idaho

HAER No. ID-2

PHOTOGRAPHS

REDUCED COPIES OF MEASURED DRAWINGS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

IDAHO - 2

American Falls Water Power and Light Co:
Island Power Plant

Location: At American Falls, Power County Idaho.
UTM: 12.346670.4737445

Date of Construction: 1902

Built by: American Falls Power, Light and Water Co.

Present Owner: Idaho Power Company/Bureau of Reclamation.

Present Use: Abandoned

Significance: This site represents technology associated with the first era of long distance electric power transmission in the state. It is also a representative example of an early low-head hydroelectric power plant built in the American West.

Research by: Dennis Zembala, 1976.

Edited for transmittal by: Donald C. Jackson, 1983

Originally built by the American Falls Power, Water and Light Company in 1901-1902, the Island Plant at American Falls played an important role in the development of Pocatello, Idaho. Erected under the organizational leadership of James Brady, an entreprenuer involved in the early commercial development of the upper Snake River Valley, the Island Plant was an interesting low-head hydroelectric plant that, though not a "pioneer" in western electric power technology, was a good representative example of this type of generating facility. First operated in July 1902, it was removed from service in 1927 following completion of the American Falls Dam by the Bureau of Reclamation. At the time of recording in 1976 the plant was devoid of original equipment except for its two horizontal double-runner Samson turbines made by James Leffel and Co. of Springfield Ohio. These turbines were rated at 1000 horsepower under a 36 foot head and were direct coupled to a General Electric Co. 500 kw, 3-phase AC generator. Turbine control was achieved by a Type B Lombard governor belted to the main shaft which regulated the amount of water entering the turbine wicket gates in proportion to the demand for electric power. A bank of three 250 kw oil insulated, water cooled transformers reportedly raised the voltage from 2300 volts to 33,500 before transmission to Pocatello, approximately 25 miles away.

Historians interested in learning more about the hydroelectric development of the American Falls region are encouraged to consult the sources listed at the end of this report. But in so doing they should note that certain features of the Island Plant's history are more interesting than others depending upon the context in which they are viewed. For example, the Island Plant's significance can be considered in light of James Brady's influence on the growth of Pocatello. This context is one of local, or regional, history and the growth of Brady's electric power interests should be analyzed in terms of their effect on the regional economy. But another way to view the plant's history is in the context of polyphase AC power transmission in Western America during the late 19th and early 20th centuries. For example, it is noteworthy that Brady hired Charles Johnson, a former employee of the Telluride Power Company in Utah, to operate the Island Plant. Under the direction of L. L. Nunn the Telluride firm was an important pioneer in certain aspects of long distance power transmission and Johnson's association with it is interesting. It is also possible to consider the Island Pland within the larger context of General Electric development of 3-phase power systems in Western America, or in the context of Western low-head hydroelectric power plants and their relationship with high- head plants in the region. In sum, the Island Plant is significant within an "internal" context of mechanical and electrical engineering and an "external" context of economic development in Southern Idaho.

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While compiling documentation on the Island, HAER researchers also photographically documented two other hydroelectric sites at American Falls. These include the still functioning East Side Plant (1913, 1924-27) and the abandoned West Side Plant (1907). Both of these sites came under the control of the Southern Idaho Water Power Company (a corporate descendent of the American Falls Water, Power and Light Co.) in 1912-13. When the Bureau of Reclamation completed

the American Falls Dam following World War I, the West Side Plant (along with the Island Plant) was abandoned and all of the Southern Idaho Water Power Company's generating facilities at the falls were consolidated at the newly expanded East Side Plant. Though no historical material was developed on these sites for this report, it was believed that researchers interested in the Island Plant would also appreciate seeing contemporary and historic photographs of the East Side and West Side Plants.

8rief List of Sources

Idaho Power Company, History of the Development of the Electric Industry in Southern Idaho and Eastern Oregon, 1887-1943, with Reference to Idaho Power Company and its Predecessors (Boise, Idaho: Idaho Power Co., 1943); This is the "official" company history of electric power development in Southern Idaho and, though not a scholarly analysis of events, it does contain much useful background information relevant to activities at American Falls and elsewhere.

Merrill D. Beal, A History of Southeastern Idaho (Caldwell, Idaho: Caxton Printers, 1942; and Byron Defenback, Idaho: The Place and Its People, Vol. 1 (Chicago: The American Historical Society, 1933); These are references on the general history of Idaho that provide a context for considering the significance of economic activity in the Pocatello region.

Newspaper accounts covering early hydroelectric development at American Falls can be found in the Pocatello Tribune May 16, 1902; July 16, 1902; July 28, 1902; July 31, 1902; August 29, 1902; August 30, 1902; September 2, 1902; September 8, 1908 and January 25, 1908. These are only a few of the newspapers that contain information on American Fall's hydroelectric development but researchers should find these to be a convenient "jumping-off-point" for further work.

U.S. Dept. of the Interior, Reclamation Project Data (Washington, D.C.: Government Printing Office, 1961); This is a basic reference work on projects undertaken by the Bureau of Reclamation prior to 1958. It contains information on the Bureaus work at American Falls, (pp. 351-364) but researchers may wish to seek more comprehensive information on American Falls in other, less generally available, Bureau publications.

Harold C. Passer, The Electrical Manufacturers, 1875-1900 (Cambridge Harvard Univ. Press, 1953); This is a widely available reference work on the early history of America's electrical industry that allows consideration of American Falls in a national context. It does not contain any specific information on activities at American Falls. Researchers may also wish to consult Technology and Culture, the journal of the Society for the History of Technology, for recent articles reviews and discussions relating to electric power history. Early electrical trade journals such as Electrical World, Electrical Engineer and Electrical Review can also provide important insight into the development of electrical technology during the late 19th and early 20th centuries. However, coverage of early AC pwoer transmission systems in the West is probably best in the Journal of Electricity (later Journal of Electricity, Power and Gas) published out of San Francisco beginning in 1895. During its early years it was also the official journal of the Pacific Coast Electric Transmission Association.